

2.1 Construction

Construction of the landfill final closure capped approximately 36 acres of refuse. The construction included stripping, scarifying, and recompacting the existing landfill foundation layer, excavating and placing additional foundation layer, screening and admixing native soil with bentonite to manufacture barrier layer material, constructing two test fills, placing admixed and existing on-site barrier layer material, installing geocomposite drains and collector pipes, screening and placing vegetative layer, installing groundwater collection piping, installing leachate collection piping, excavating and lining ditches, installing overside drains, installing new LFG wells and collection system, constructing the LFG Blower Building and piping complex, installing the LFG flare, constructing access roads, paving, and hydroseeding.

The foundation layer construction consisted of scarifying and recompacting those areas that did not meet the required compaction, excavating, and placing existing foundation layer soils, and excavating, screening and placing screened, on-site borrow material soils as additional foundation to achieve the minimum grades and to construct drainage benches.

The earthfill's construction consisted of screened native soils placed to construct the equipment pad and access roads.

The barrier layer construction consisted of a 12-inch-minimum-thickness of either an admixture of screened nature soil and bentonite or existing on-site clay soils with a permeability less than 1×10^{-6} centimeters per second. A test fill was constructed for each type of material to verify the soil would meet the required permeability and to establish a correlation between laboratory and field permeabilities.

The vegetative layer consisted of a minimum of 2-foot-thick screened soil placed over the low-permeability layer to protect the underlying components. A geocomposite drainage

system was installed between the barrier layer and vegetative layer when the slopes were greater than 4:1 (horizontal to vertical) as required by the design requirements.

The LFG system included the installation of 25 new LFG wells with underground conveyance piping to the equipment and piping complex, field condensate collection sumps with underground conveyance and air piping, and the construction of an LFG flare system.

Other details for the landfill closure construction can be found in the document entitled "Project Manual, Including Specifications for Eastern Regional Landfill Final Cover and Landfill Gas Control System, Placer County, California," Placer County, April 1997.